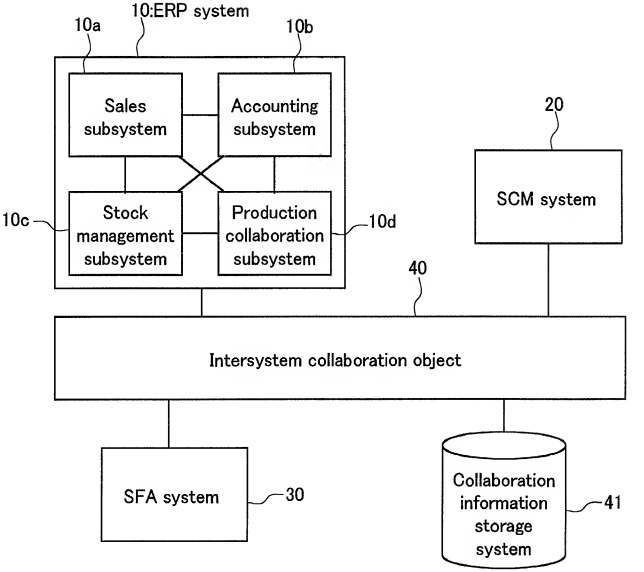
10:ERP system
10a
10b
Sales subsystem
Accounting subsystem
Stock management subsystem
Production collaboration subsystem
10c
10d
20
SCM system
40
Intersystem collaboration object
SFA system
30
Collaboration information storage system
41

FIG. 1

EP0990984A2

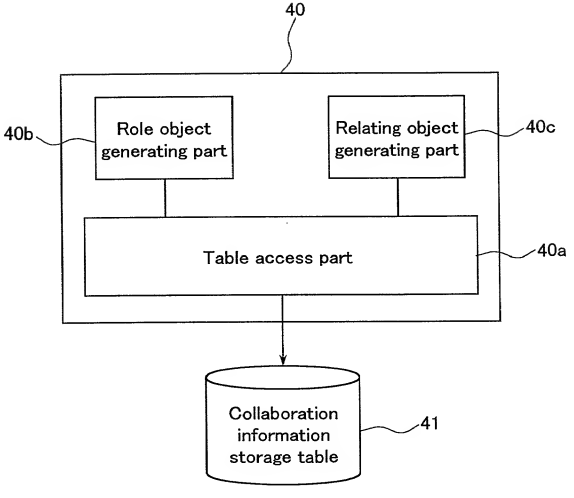

FIG. 2

09974283.050501

Path	Communication method
SFA ⟶ ERP	Real
ERP ⟶ SCM	Delayed batch

FIG. 3

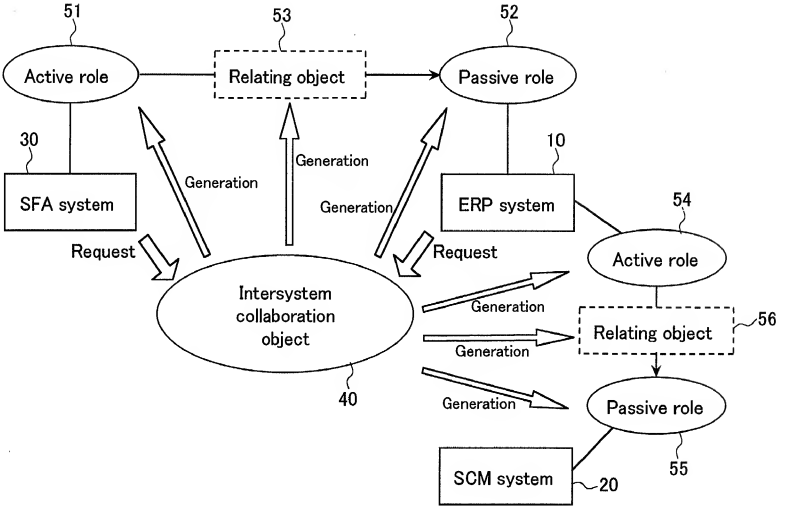
51
53
52
Active role
Relating object
Passive role
30
10
SFA system
ERP system
Generation
Generation
Generation
Request
Request
54
Active role
Intersystem collaboration object
Generation
Relating object
56
Generation
Generation
Passive role
40
SCM system
20
55

FIG. 4

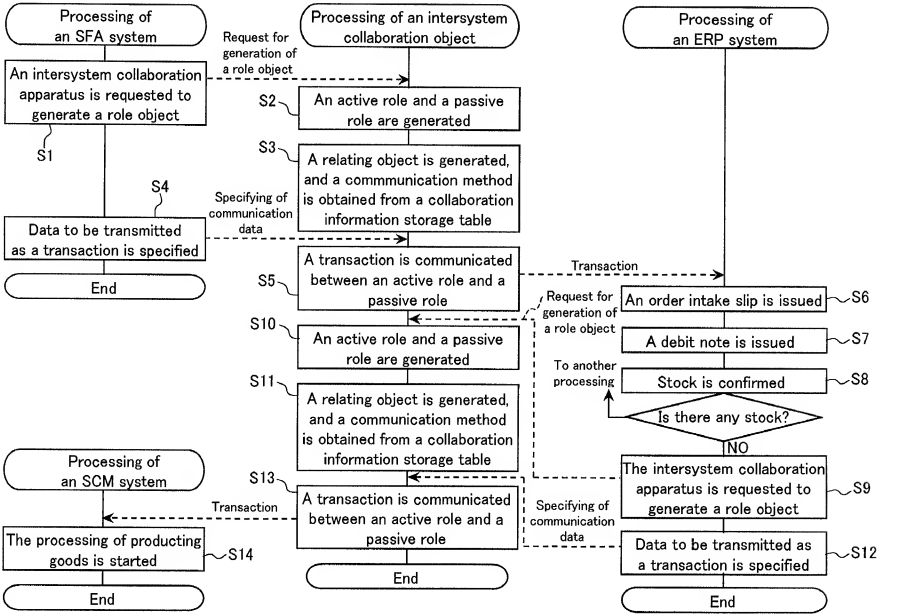
Processing of an SFA system
An intersystem collaboration apparatus is requested to generate a role object
S1
Data to be transmitted as a transaction is specified
End
Request for generation of a role object
Specifying of communication data
Processing of an intersystem collaboration object
S2
An active role and a passive role are generated
S3
A relating object is generated, and a commmunication method is obtained from a collaboration information storage table
S4
A transaction is communicated between an active role and a passive role
S5
End
Processing of an ERP system
Transaction
An order intake slip is issued
S6
A debit note is issued
S7
Stock is confirmed
S8
Is there any stock?
NO
The intersystem collaboration apparatus is requested to generate a role object
S9
Data to be transmitted as a transaction is specified
S12
End
Request for generation of a role object
To another processing
S10
An active role and a passive role are generated
S11
A relating object is generated, and a communication method is obtained from a collaboration information storage table
S13
A transaction is communicated between an active role and a passive role
End
Specifying of communication data
Processing of an SCM system
Transaction
The processing of producting goods is started
S14
End

FIG. 5

T09090*E821478G0

Attribute tag T_1	Update flag F_1	Data part D_1	Attribute tag T_2	Update flag F_2	Data part D_2

FIG. 6

Path	Communication method
SFA → ERP	Real
ERP → SCM	Delayed batch
Sales subsystem → Accounting subsystem	Real
Accounting subsystem → Stock management subsystem	Real
Stock management subsystem → Production collaboration subsystem	Batch

FIG. 7

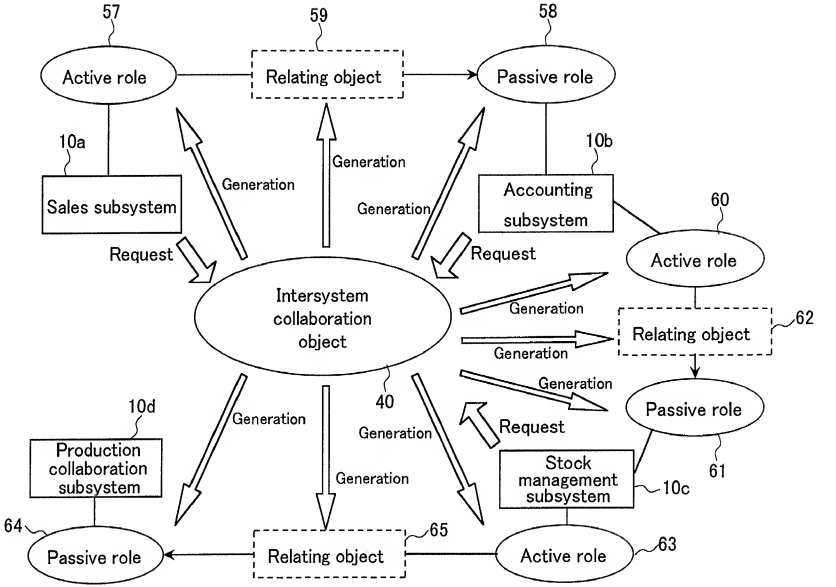
57
Active role
59
Relating object
58
Passive role
10a
Sales subsystem
10b
Accounting subsystem
60
Active role
Generation
Request
Intersystem collaboration object
40
62
Relating object
10d
Production collaboration subsystem
Stock management subsystem
10c
61
Passive role
64
Passive role
65
Relating object
Active role
63

FIG. 8

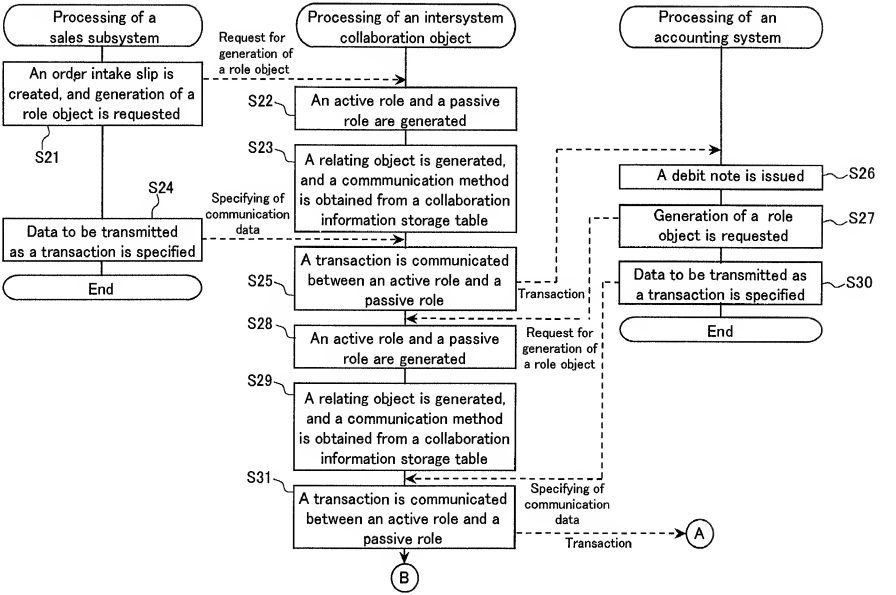
Processing of a sales subsystem
An order intake slip is created, and generation of a role object is requested
S21
Data to be transmitted as a transaction is specified
S24
End
Request for generation of a role object
Specifying of communication data
Processing of an intersystem collaboration object
S22
An active role and a passive role are generated
S23
A relating object is generated, and a commmunication method is obtained from a collaboration information storage table
A transaction is communicated between an active role and a passive role
S25
Transaction
S28
An active role and a passive role are generated
S29
A relating object is generated, and a communication method is obtained from a collaboration information storage table
S31
A transaction is communicated between an active role and a passive role
Specifying of communication data
Transaction
A
B
Processing of an accounting system
A debit note is issued
S26
Generation of a role object is requested
S27
Data to be transmitted as a transaction is specified
S30
End
Request for generation of a role object

FIG. 9

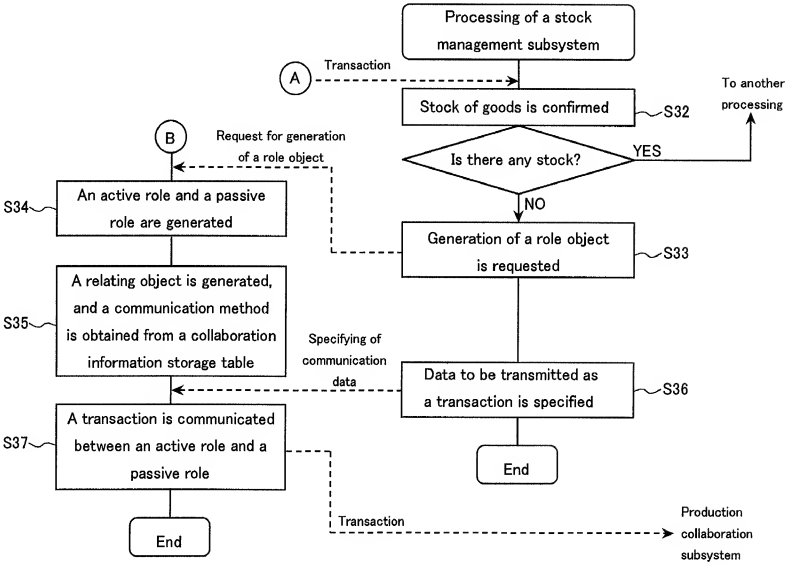
Processing of a stock management subsystem
Transaction
A
Stock of goods is confirmed
S32
To another processing
Is there any stock?
YES
NO
B
Request for generation of a role object
Generation of a role object is requested
S33
S34
An active role and a passive role are generated
S35
A relating object is generated, and a communication method is obtained from a collaboration information storage table
Specifying of communication data
Data to be transmitted as a transaction is specified
S36
S37
A transaction is communicated between an active role and a passive role
End
End
Transaction
Production collaboration subsystem

FIG. 10

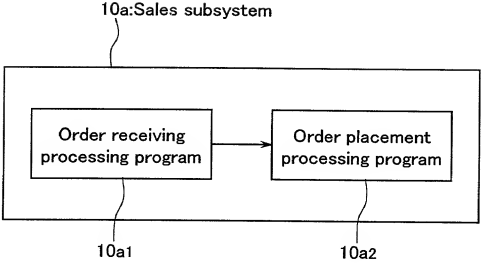

FIG. 11

09574283.050601

Path			Communication method
Order receiving processing program	→	Order placement processing program	Real

FIG. 12

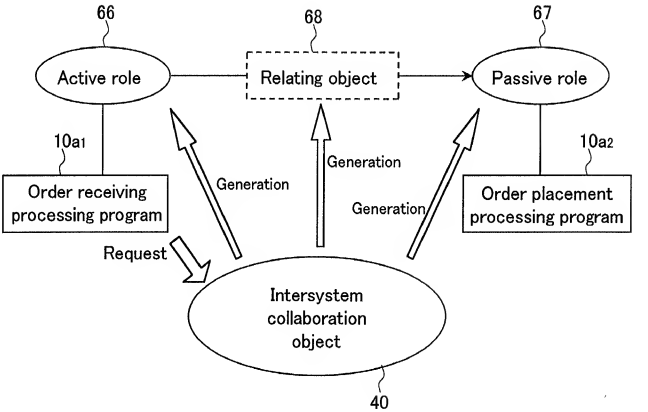
66
68
67
Active role
Relating object
Passive role
10a1
10a2
Generation
Generation
Generation
Order receiving processing program
Order placement processing program
Request
Intersystem collaboration object
40

FIG. 13

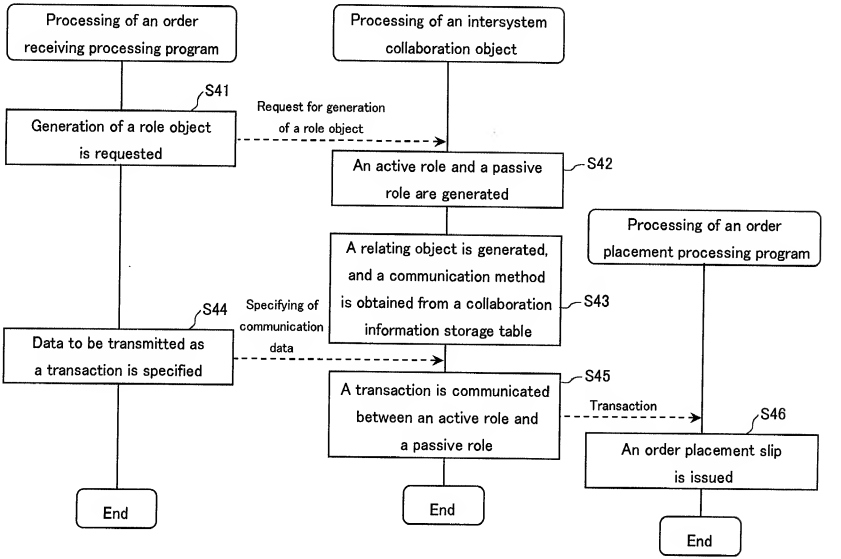
Processing of an order receiving processing program
Processing of an intersystem collaboration object
S41
Generation of a role object is requested
Request for generation of a role object
An active role and a passive role are generated
S42
Processing of an order placement processing program
A relating object is generated, and a communication method is obtained from a collaboration information storage table
S43
S44
Specifying of communication data
Data to be transmitted as a transaction is specified
A transaction is communicated between an active role and a passive role
S45
Transaction
S46
An order placement slip is issued
End
End
End

FIG. 14

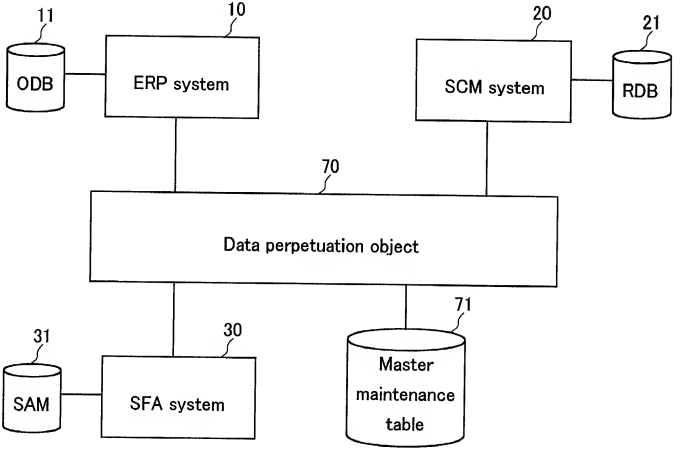
11
10
20
21
ODB
ERP system
SCM system
RDB
70
Data perpetuation object
71
31
30
SAM
SFA system
Master maintenance table

FIG. 15

Path	Communication method
ERP → SCM	Real
SCM → SFA	Delayed batch

FIG. 16

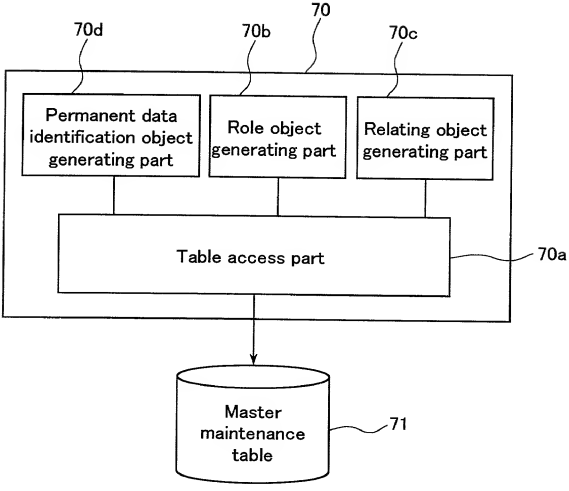
70
70d
70b
70c
Permanent data identification object generating part
Role object generating part
Relating object generating part
Table access part
70a
Master maintenance table
71

FIG. 17

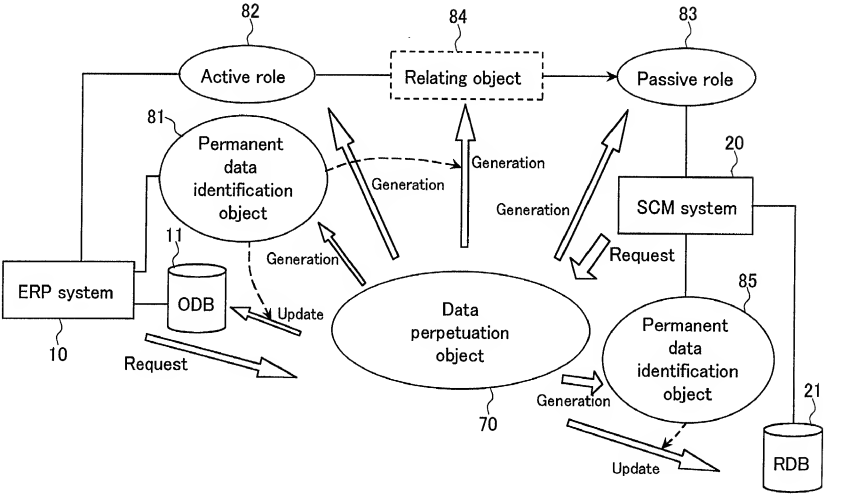
82
84
83
Active role
Relating object
Passive role
81
Permanent data identification object
Generation
Generation
Generation
20
SCM system
11
Generation
Request
ERP system
ODB
Update
Data perpetuation object
85
Permanent data identification object
10
Request
Generation
21
70
Update
RDB

FIG. 18

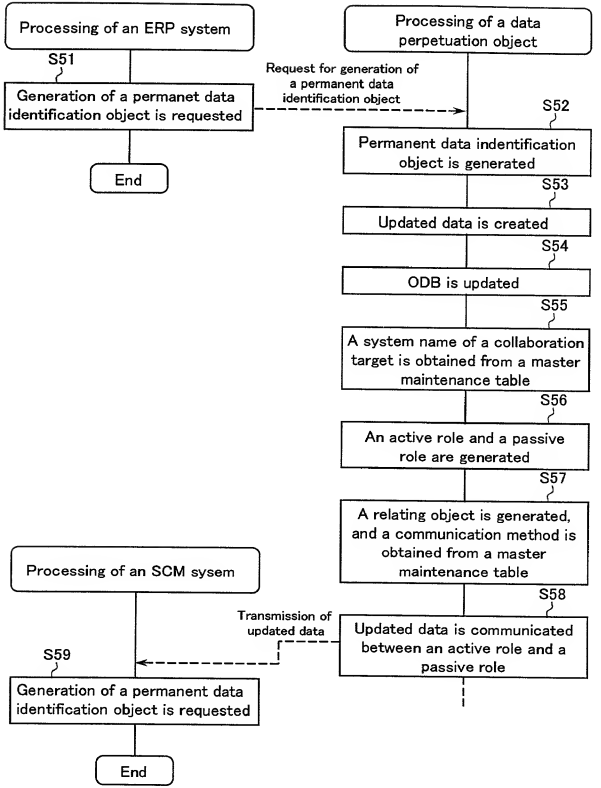
Processing of an ERP system
S51
Generation of a permanet data identification object is requested
End
Request for generation of a permanent data identification object
Processing of a data perpetuation object
S52
Permanent data indentification object is generated
S53
Updated data is created
S54
ODB is updated
S55
A system name of a collaboration target is obtained from a master maintenance table
S56
An active role and a passive role are generated
S57
A relating object is generated, and a communication method is obtained from a master maintenance table
S58
Updated data is communicated between an active role and a passive role
Transmission of updated data
Processing of an SCM sysem
S59
Generation of a permanent data identification object is requested
End

FIG. 19